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Office Memorandum

DEPARTMENT : POLLUTION CONTROL AGENCY

OCT 231986 DATE :

TO Darryl Weakley George Johnson

Hazardous Waste Enforcement

THRU: Debra McGovern Jim Lundy JRI 10/22/86

Site Assessment Unit Site Response Section

PHONE :296-7818

EPA Region 5 Records Ctr. 387909

SUBJECT : ELECTROMAGNETIC SURVEY AT INTERPLASTIC CORPORATION, MINNEAPOLIS

On September 24, 1986, Jay Frischman (DNR-Waters: 296-0517) and I conducted an electromagnetic survey on a portion of a paved asphalt parking lot owned by Interplastic Corporation, Minneapolis (Site). This survey was done as a supplement to the work of Darryl Weakley and George Johnson of the Hazardous Waste Section, who are Project Managers for this site. It is alleged that drums, possibly containing hazardous waste, have been improperly disposed of in a trench that now lies beneath the parking lot; this survey was designed to confirm their likely presence or absence.

The survey consisted of inphase and quadrature (conductivity) phase readings on a grid of north-south lines spaced 2.5 meters apart, and station spacings of 2.5 meters. The inphase survey detected a very strong anomaly of about 85 millimhos/meter, and the quadrature phase survey detected a plume-like anomaly extending to the southeast of the inphase anomaly. It seems clear that some metal object is buried in this location, although it is not possible on the basis of geophysics alone to say exactly what it is. A formal report on the geophysical survey will be issued soon by the Site Assessment Unit, in which all procedures, findings and conclusions will be stated.

A previous electromagnetic survey conducted by Hatcher Engineering on the southern end of the parking lot attempted to map the locations of buried metallic objects on-site, and concluded that none were present. However, we believe that this study should be considered highly suspect for the following reasons:

- The instrument used (Geonics EM-34 electromagnetometer) is designed primarily for conductivity measurements at relatively deep levels, not for relatively shallow metal detection surveys;
- The survey covered 1/3 to 1/2 of the area in question, yet the report's conclusions extrapolate to the entire site and are therefore specious;
- The primary anomaly detected in that survey was located only a few meters from large amounts of surface metal, including cyclone fencing and a large (approximately 15 feet in diameter, 20 feet tall) above ground metal tank. These objects most likely interfered with the survey measurements, making the anomaly location, if not the anomaly itself, highly suspect.

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4) The two clean auger holes prove only that no buried waste is in these locations to the depth of sampling. They cannot be taken as proof of the absence of waste elsewhere on the Site.

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cc: Jay Frischman, DNR-Waters Deb McGovern, MPCA